

**Before the  
Federal Communications Commission  
Washington, D.C.**

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<i>In the Matter of</i>	)	
	)	
Schools and Libraries Universal Service	)	CC Docket No. 02-6
Support Mechanism	)	
	)	
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**ON-TECH COMMENTS ON  
NOTICE OF PROPOSED RULEMAKING**

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## Introduction

On-Tech (On-Tech), a technology consulting firm based in Red Bank, New Jersey, assists schools and libraries in navigating the E-Rate process. On-Tech serves a broad range of applicants. In addition to the firm's significant experience working with the E-Rate program, Dan Riordan, president of On-Tech, is both an experienced network engineer and a former purchasing officer for the U.S. Government.

## Comments

These comments concern only the E-Rate program.

### ***USF Administrative Structure***

The administration of the E-Rate program should be made more transparent and less complex.

### **Codify and Publish All USAC Procedures**

USAC has created a set of secret rules and procedures called "internal controls." For example, there has been a secret products database used by PIA, listing products and their eligibility. Some of this information has become available in the Online Eligible Products database, but not all of it. As another example, PIA has established "reasonable" costs for a range of services. An application showing a cost of \$100 per month for 5 phone lines will not invite extra scrutiny, but an application showing \$500 per month for 5 phone lines will result in PIA demanding proof.

"Internal controls" should be used by USAC to evaluate its own activities, not to make funding decisions. In the examples above, any information that the SLD is using concerning eligibility of products should be available to the public. Any thresholds for reasonable cost should be published, along with a warning that exceeding the thresholds will result in increased scrutiny.

In general, procedures, scripts, rules, guidelines, thresholds, standards, etc. that are used in making decisions on funding commitments or disbursement should be approved by the FCC and made public, unless the FCC gives specific approval for secrecy.

### **Delegate More Authority to USAC**

The FCC should either delegate more authority to the SLD, or the FCC should be more involved in decisions. The Online Eligible Products Database is a good example. If an applicant finds a piece of equipment on the SLD Web site and receives funding for it, and an audit later determines that the equipment was not eligible and the FCC agrees, the applicant will have to repay the funding. The fact that both the manufacturer and the SLD told the applicant that the equipment was eligible is no protection.

Similarly, if an applicant or service provider is unclear on the meaning of a rule, there is no method for getting clarification. There is no procedure for requesting clarification from the FCC, and any answers from the SLD can only be treated as advice, since the SLD has no authority.

## ***Performance Measures for the E-Rate***

### **Outcome Measures**

The data currently collected on the Form 471 will allow the Commission to measure outcome. The Form 471 should be modified to add the word “broadband” to items 7e, 7f, 7g, 8e, 8f and 8g.

Collecting information on the percentage of students, teachers or library patrons using supported services would create a significant increase in expenditure of resources, and would measure the indirect impact of the program rather than the direct impact. The E-Rate provides support only in delivering voice, video and data to instructional/public areas, so only the delivery of voice, video and data should be measured.

The Commission could distinguish the impact of the E-Rate funds from other support by comparing the outcome measures for the E-Rate program to the data on technology use in schools and libraries collected annually by the NCES<sup>1</sup>

### **Output Measures**

Creating measures which evaluated the number of applicants funded by the program would encourage simplification of the process for obtaining funding. The complexity of the process is a significant deterrent to participation, so evaluating the success of the program based on the number of applications would encourage simplicity.

### **Efficiency Measures**

The Commission should measure the expenditure of resources required from applicants relative to the amount of funding received. If the Commission adopted such a measure, it would encourage simplification of the funding process. Since the amount of funding is constant for the E-Rate, the efficiency would only be improved by reducing the burden on applicants.

As an example, the new requirement in Item 25 of the Form 471 to supply budget figures places a substantial burden on applicants, especially since most of them are in the early stages of drafting a budget when the Form 471 must be submitted. Since the SLD has stated that funding will not be denied based on those numbers, the considerable increase in work for applicants does not improve the effectiveness of the program. An efficiency measure which measures the effort required from applicants will discourage this sort of unnecessary and onerous expansion of the program rules.

The E-Rate program currently has stringent deadlines for applicants, but none for the Commission or USAC. This past year, applicants were required to file applications by 11:59 p.m. February 18, 2005. Any applicants who missed the deadline by one minute will receive no funding. Three months later, with the start of the funding year two weeks away, USAC had not approved a single funding request. In order to give service providers time to set up discounts within their billing systems, 100% of applications should be approved by June 1<sup>st</sup>. The following norms should be set for common tasks:

Funding commitment decision	90 days
Form 486 processing	5 days

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<sup>1</sup> <http://nces.ed.gov/surveys/frss/publications/2005015/tables.asp>

Invoice processing	7 days
SLD appeals	30 days
FCC appeals	60 days
Service substitutions	10 days
SPIN changes	5 days

## ***Program Management***

### **Formulaic Funding for the E-Rate**

Providing block funding based on a formula is contrary to the goals of the E-Rate program. Since the availability of E-Rate funds is always less than the demand, allocating the insufficient funds based on factors like population served will encourage applicants to “live within their means.” However, the goal of the program is not to encourage thrift. The goal of the program is to allow for the evolution of advanced services available to schools and libraries. The current application process encourages this type of innovation.

While formulaic funding would seem to offer more flexibility and simplify the process, the truth is that the rigidity and complexity would be hidden from applicants until they were audited. The NPRM suggests allowing schools to use funds “for communications-related services...rather than requiring applications that identify needed services.” The Eligible Services List is over 70 pages now, and it is still not entirely clear what the FCC considers “communications-related services.” Formulaic funding would not allow more flexibility; the Commission will still have to place limits on how the funding is spent. Creating a broader definition of “communications-related services” would allow more flexibility. The breadth of the definition is not related to the use of formulaic funding.

The necessity for CIPA compliance for some applicants creates the need for two formulas: one of CIPA-compliant applicants, one for non-compliant applicants. The number of applicants compliant would not be known until the start of the funding year, when applicants certify CIPA compliance. As a result, USAC would not know the demand until after the start of the program year, so applicants would not know the amount of funding until after the year starts, making planning even more difficult than it is now.

### ***E-Rate Application Process***

In reforming the application process, the Commission should seek to move toward two goals: simplicity and transparency. The application process should be as simple as possible. The current complexity of the process is a barrier to applicants. Increasing transparency will make the review process easier for the SLD, and reduce the high level of fear among applicants.

### **Automation of the E-Rate Process**

All other reforms aside, the E-Rate process should be standardized and automated. The Form 470 should be a list of eligible services, with drop-down menus for quantity and capacity. Applicants should select the services they need, and put in the quantity desired. This standardization will provide meaningful information to service providers, and encourage bidding.

The automated application process should accept bids online. Since the services will be described in a standard way, service providers will be able to provide at least a preliminary bid. The bidding process on all applications would thus be fully transparent to the SLD.

Applicants could then with one click select the winning bidder(s) online, and the Form 471 would be complete. The cost of the service has already been included as part of the service provider's bid. Because the services were described well at the beginning of the process, there is no need for an Item 21 Attachment.

On July 1, the automated application system would send an email to the applicant with a URL for the Form 486. The applicant would click on that link, and the Form 486 would be done.

The applicant or service provider would periodically submit an invoice online. In the case of the Form 472, an email would be sent to the service provider with instructions on how to certify the form.

This automation would make the entire process faster and easier for applicants and service providers and more transparent for the SLD.

### **Online Item 21 Attachments**

Whether or not the SLD automates the application process, information from Item 21 Attachments should be published. The availability of the attachments would increase transparency, decrease waste, and increase competition. The increased transparency would primarily benefit service providers, who would no longer have to guess what services were included in a particular FRN. Waste would be reduced as all agreements would be subjected to public scrutiny; peer review would be very effective in pointing out unwarranted charges. Competition would increase as each service provider would be able to see year-round exactly what services are needed, and what the applicant is currently paying. A service provider who could provide the service more cheaply could make an offer to the applicant at any time during the year.

### **Three-Tiered Application Process**

There should be three levels of complexity in the application process, one for basic phone service, one for all Priority One services, and a third for Priority Two services.

**Basic Phone Service:** In order to receive funding for basic telephone service, there is no requirement for CIPA compliance, contracts, or technology plans. The entire application process should consist of submitting a phone bill once. Based on that bill, the SLD should grant funding sufficient to cover the cost of that bill for the duration of the E-Rate program. Every year in May, the SLD should send an email asking if any changes are anticipated for the coming year. If no response is received, funding should continue at the previous year's level.

**Priority One Service:** For any Priority One service beyond basic telephone service, applicants should go through a process similar to the current application process once. The funding approved at the end of the process would continue for the duration of the program. In subsequent years, applicants would have to sign the required certifications and inform the SLD of any anticipated changes in services for the coming year.

**Priority Two Service:** For Priority Two service, applicants would have to continue with an application similar to the current one.

## **Increased Information on Status**

It is apparent from calls to the Client Service Bureau that the SLD has an automated tracking system for applications, invoices, service substitutions, appeals, etc. The information in that tracking system should be available online. Upon logging in, an applicant or service provider should see all current FRNs for their BEN or SPIN, along with approval status. By clicking on an FRN, an applicant should be able to see approval status, any pending appeals, SPIN changes, etc. associate with that FRN, and the status of all invoices from that FRN.

## **Notification of Status**

At every change in status, an email notification should be sent to the applicant contact. As the SLD processes applications and invoices, applicants should be made aware of all changes in status by email. For example, when an applicant submits a service substitution request, emails should go out when: 1) the request is received by SLD, 2) the request is assigned to a reviewer, 3) the review is complete, and 4) the substitution is approved. These notifications will increase the transparency of the process.

The notifications should also include warnings. For example, if a Form 471 shows a service start date of July 1, the funding commitment was sent before the start of the funding year, and the applicant has not submitted a Form 486 by October 10<sup>th</sup>, a notification should be sent warning of the impending loss of funding.

## **Competitive Bidding**

Public school districts and libraries are subject to state purchasing regulations. These regulations have been developed over the years to ensure that contracts are awarded fairly and at a fair price. The Commission should let state purchasing law govern E-Rate purchases, rather than imposing a set of unclear competitive bidding policies.

## **Online Eligible Products Database**

The online eligible products database is too limited in scope, function and authority to be useful. The scope needs to be expanded to include all eligible products and services. The function of the database could then be expanded to allow items to be chosen from the database for the Forms 470 and 471. Finally, the database needs to be authoritative. Currently, if a product is incorrectly identified as eligible by the manufacturer and the SLD, the funding for that item will later be recovered from the applicant. The database needs to be approved by the FCC, as the Eligible Services List is now.

## **Service Life for Equipment**

All network equipment should be presumed to have a service life of three years, wiring a service life of seven years. In the case of a COMAD, USAC should recover only the remaining value of the equipment.

## **Disburse Funds to the Applicant**

The Good Samaritan process should not be necessary, because funds should be disbursed directly to applicants. The disbursement to service providers adds up to twenty days to the reimbursement process under ideal circumstances. In our experiences delays of forty days are

not unusual, and we have seen a delay of seven months between USAC disbursement and receipt of funding by the applicant.

### **Eliminate the Form 470**

In our experience, the Form 470 serves not to lower costs, but to increase opportunities for fraud. The Form 470 is not a good vehicle for promoting competition. Because the descriptions are not standardized, it is very difficult for service providers to find applicants interested in their products.

The Form 470 attracts providers offering “revenue opportunities” and “commissions” to those with access to the application process. On-Tech often receives response from the Form 470 from service providers who think of schools and libraries less as customers and more as gatekeepers to federal funding.

### **Combine Forms 472, 474 and 486**

Since the service start date is stated on the Form 471, the only purpose of the Form 486 is to certify CIPA compliance. If that certification were made at the time of invoicing, applicants could certify that they were CIPA-compliant during the entire period covered by the invoice, instead of only certifying compliance at the start of the period. Forms 472 and 474 should be combined, so that certification is required from both applicant and service provider for all invoices.

### **Timing of Application Cycle**

The application cycle should be adjusted to fit the realities of the school budget cycle. The current application cycle forces applicants to sign contracts and certify that access to funds for the applicant share has been secured by February for services to be delivered in the following fiscal year. In February, the final budget has not been submitted to the local board, much less approved by the board or the state Department of Education or local voters. Applicants should not be required to certify availability of funds or sign contracts before April.

### **Registration of Consultants**

Consultants should be required to submit an annual certification. The certification should include a list of any service providers with whom the consultant or its employees has a business relationship. The SLD should publish on their Web site a registry of E-Rate consultants, which should include information on associations with service providers. An optional certification program should be put in place, funded by fees paid by the consultants seeking certification. The certification status of consultants should be displayed in the consultant registry.

### **Increased Information on Service Providers**

The SLD’s public listing for each service provider should provide significantly more information. Among the items that should be available to applicants:

1. A fax number to which BEARs can be sent.
2. An email address.



3. Information on whether a service provider is currently red-lighted, in bankruptcy, debarred or under investigation. Any of these conditions affect an applicant's ability to receive funding from the program, and so should be available to applicants.
4. Service provider willingness to provide discounted bills, and what fees, if any, the service provider charges for administrative costs associated with discounting.
5. A link to all FRNs with that service provider's SPIN.

## ***Oversight of the USF***

### **Beneficiary Audits**

The Commission should require audits of two groups of applicants. First, applicants and service providers found to have violated competitive bidding rules, falsely certified on an application, or invoiced for services not delivered should be required to have an independent audit, at applicant expense, for the two funding cycles following the violation. Second, all applicants requesting more than \$1 million in funding should be required to conduct an independent audit at their own cost. A quick analysis of the applications for 2005 indicates that 435 applicants would be affected by this requirement. For smaller applicants, the requirement to endure an audit would be a strong disincentive to participate.

In addition, applicants seeking funding in excess of a certain amount per student or patron should be required to conduct an independent audit.

### **Recovery of Funds**

The Commission should not seek recovery of funds in cases where the applicant supplied correct information to USAC, and USAC approved and disbursed funding, but later the disbursement was found to have been improper. If the applicant did not try to deceive USAC, given that applicants do not have access to any authority higher than USAC, errors by USAC should not result in recovery from applicants.

### **Measure to Deter Waste, Fraud and Abuse**

Since the purpose of the program is to foster the evolution of advanced telecommunications services, no funding cap should be set. However, applicants requesting funding above a certain level should be required to conduct an audit at their own expense. The funding level should be per-student for schools and per-patron for libraries. The level should be set at the 95<sup>th</sup> percentile of per-student and per-patron spending by applicants in the current funding year.

As mentioned above, publication of the Item 21 Attachments would decrease waste, fraud and abuse. Public scrutiny of the services being ordered and the cost being paid will be more effective than selective audits in finding excessive pricing and unnecessary service.

In addition to requiring audits for previous rule violators, as mentioned above, the Commission should require violators to hire a certified consultant to assist and monitor their application process. Consultants would have a powerful incentive to follow program rules, since violations would result in loss of certification and registration, forcing them out of business.

## **Other Actions to Reduce Waste, Fraud and Abuse**

In cases of applicant waste, fraud or abuse, there is one common factor: a 90% discount. The 90% discount results in such eagerness for purchasing that the Commission has been forced to take steps like creating stricter technology planning requirements to force applicants to pause to consider the need for the items purchased. The “2 in 5” rule had to be created to reduce the tendency of 90% applicants to buy the latest every year. As long as the 90% discount exists, the Commission will be forced to invent rules to restrain applicants at the discount level. Those rules then become a burden to applicants at the 40% level, who are restrained by the fact that they have to pay most of the cost of services. The highest level of discounts for Priority Two services and equipment should be 70%.

## **Conclusion**

On-Tech thanks the Commission for the opportunity to comment on the proposed changes to the rules. On-Tech is also grateful for the Commission’s efforts to distribute the program’s funds equitably and maintain consistency in the program rules.

Respectfully submitted,

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## Appendix A

### *Capital Recovery in WAN leases*

The hypothetical WAN lease demonstrates the effect of lease length on the amount of upfront capital recovery allowed if the maximum is 25% of annual cost.

#### **Assumptions**

Total capital costs:	\$1,200,000
Monthly maintenance and fees:	\$2,000
Finance rate (per year):	6%

#### **5-Year Lease:**

Lease Period (in months)	60
Monthly cost recovery:	\$23,199
Monthly maintenance and fees:	\$2,000
Total monthly cost:	\$25,199
Annual cost without capital recovery:	\$302,392
Allowable upfront capital recovery: (at 25% of total annual cost)	\$100,797

#### **10-Year Lease**

Lease Period (in months)	120
Monthly cost recovery:	\$13,322
Monthly maintenance and fees:	\$2,000
Total monthly cost:	\$15,322
Annual cost without capital recovery:	\$183,870
Allowable upfront capital recovery:	\$61,290

## Appendix B

### *Total Cost of Ownership*

#### Microsoft Exchange E-Mail Server

Data from:

<http://www.microsoft.com/exchange/evaluation/TotalCost.asp>

<b>Exchange 2003 Messaging and Collaboration Costs</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>	<b>% of Total</b>
Messaging & Collaboration Acquisition Cost per User	\$59.29	N/A	N/A	\$59.29	18%
Messaging & Collaboration Maintenance Cost per User	N/A	\$14.82	\$14.82	\$29.64	9%
Administration Cost per User	\$22.17	\$22.17	\$22.17	\$66.51	21%
Migration & Upgrades Cost per User	\$5.70	\$5.70	\$5.70	\$17.10	5%
Storage Cost per User	\$10.50	\$10.50	\$10.50	\$31.50	10%
Downtime Cost per User	\$36.81	\$36.81	\$36.81	\$110.43	34%
Training Cost per User	\$2.20	\$2.20	\$2.20	\$6.60	2%
<b>Messaging and Collaboration TCO per User/ Year</b>	<b>\$136.67</b>	<b>\$92.20</b>	<b>\$92.20</b>	<b>\$321.07</b>	

#### Microsoft Windows 2000 and Linux Web server

Data from

<http://www.microsoft.com/windows2000/docs/TCO.pdf>

<b>Cost Factor</b>	<b>Microsoft</b>	<b>% of total</b>	<b>Linux</b>	<b>% of total</b>
Hardware	\$ 7,087.00	21.9%	\$ 3,006.00	9.8%
Software	\$ 7,107.00	22.0%	\$ 1,390.00	4.5%
Staffing	\$15,102.00	46.7%	\$23,015.00	75.2%
Downtime	\$ 1,646.00	5.1%	\$ 1,541.00	5.0%
IT staff training	\$ 1,304.00	4.0%	\$ 1,584.00	5.2%
Outsourced	\$ 59.00	0.2%	\$ 64.00	0.2%
Total	\$32,305.00		\$30,600.00	

## Appendix C

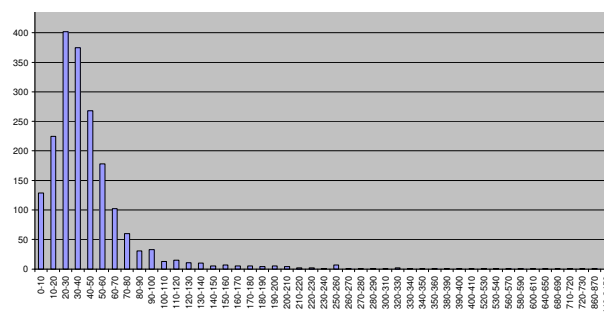
### ***Priority One Spending Per Student in New Jersey***

The tables and charts below show the dollars spent per student per year on services discounted under the E-Rate program by public school districts in the state of New Jersey. The left column includes data for all funding years; each district receives one “entry” for each year it was funded. The right column uses only Program Year 2003 data. The left column is based on a wider range of data, but the right column gives a better idea of current spending.

The data indicate that two thirds of the districts in NJ spent less than \$50 per student in 2003 on Telecommunications Services and Internet Access, while 90% spent less than \$90.

**Note:** Some rows of data have been omitted from the tables to save space, but the data are included in the charts.

\$ Per Student	Entries	Running	%
		Total	Included
0-10	129	129	6.71%
10-20	225	354	18.42%
20-30	402	756	39.33%
30-40	375	1131	58.84%
40-50	268	1399	72.79%
50-60	178	1577	82.05%
60-70	102	1679	87.36%
70-80	60	1739	90.48%
80-90	31	1770	92.09%
90-100	33	1803	93.81%
100-110	13	1816	94.48%
110-120	15	1831	95.27%
120-130	11	1842	95.84%
<i>Data omitted</i>			
300-310	1	1903	99.01%
<i>Data omitted</i>			
3440-3450	1	1922	100.00%



\$ Per Student	Districts	Running	Percent
		Total	Included
0-10	5	5	1.37%
10-20	20	25	6.87%
20-30	62	87	23.90%
30-40	82	169	46.43%
40-50	74	243	66.76%
50-60	38	281	77.20%
60-70	29	310	85.16%
70-80	14	324	89.01%
80-90	7	331	90.93%
90-100	9	340	93.41%
100-110	4	344	94.51%
110-120	2	346	95.05%
<i>Data omitted</i>			
260-270	1	361	99.18%
400-410	1	362	99.45%
530-540	1	363	99.73%
600-610	1	364	100.00%

